Soviet Health Care and Perestroika

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Abstract: Health and health care in the Soviet Union are drawing special attention during these first years of *perestroika,* Mikhail Gorbachev's reform of Soviet political and economic life. This report briefly describes the current state of Soviet health and medical care, Gorbachev's plans for reform, and the prospects for success. In recent years the Soviet Union has experienced a rising infant mortality rate and declining life expectancy. The health care system has been increasingly criticized for its uncaring providers, low quality of care, and unequal access. The proposed measures will increase by 50 percent the state's contribution to health care financing, encourage private medicine on a small scale, and begin experimentation with capitation financing. It seems unlikely that the government will be able to finance its share of planned health improvements, or that private medicine, constrained by the government's tight control, will contribute much in the near term. Recovery of the Soviet economy in general as well as the ability of health care institutions to gain access to Western materials will largely determine the success of reform of the Soviet health care system. *(Am J Public Health* 1990; 80:193–197.)

Since Mikhail Gorbachev's assumption of power in 1985, the USSR has begun both a public debate *(glasnost)* about the country's economic and social ills and a collective drive to remedy them (called *perestroika,* or restructuring). Nowhere are the shortcomings of the Soviet system more evident than in health. The Minister of Health, Yevgeny Chazov, recently characterized health as the area where "the number of problems that have piled up is larger than in any other sphere of activities of Soviet society."[1] Accordingly, *perestroika* is to include special emphasis on restructuring the health care system. Little has been published about the Soviet drive to make improvements. This report describes some aspects of the current Soviet health care system and the prospects for change under *perestroika.* We rely on information gleaned from the Soviet professional and popular press, Western sources, and our personal observations of Soviet medical care made in Russia and the Ukraine from May through November 1987 while we worked with a United States Information Agency exhibit as Russian-speaking American physicians.

The Need for Change

Health Indicators

The Soviet government and people have been justifiably proud of a post-war health record characterized by improvement in infant mortality, life expectancy, and overall mortality rates.[2] The rapid development since the early 1930s of a system that provides universal access to primary health care services in local sites and specialty services in regional centers is surely responsible in part for these achievements. Since the early 1970s, however, the state of the nation's health and, to many Western and Soviet observers, the quality of its health care system have declined.

Infant mortality has risen from 22.9 per 1000 in 1971 to 26 per 1000 in 1985,[3] highest in Europe except for Yugoslavia and Romania,[4] and may in fact be higher, since the official Soviet definition of late fetal and infant mortality is less inclusive than that used by the World Health Organization, and vital statistics reporting is incomplete.[5] Cardiovascular disease and alcoholism are epidemic—deaths from cardiovascular diseases have increased by 50 percent since the early 1960s, accounting for half of all Soviet deaths in 1980,[6] although the rate of increase has recently slackened.[7] Alcohol is associated with one-fifth of all premature deaths, over one-sixth of the average Soviet household budget goes for hard liquor, and one-fourth of the families in the Slavic republics (Russia, the Ukraine, and Byelorussia) spend more than one-third of their income on alcohol.[8] As a result, male life expectancy declined from 67 years in 1964 to 63 years in the early 1980s,[8] and average life expectancy now ranks thirty-second in the world.[9]

In a country as developed and industrialized as the Soviet Union of the 1970s, these declining health indicators probably reflect a deterioration of general economic conditions. The contribution of the country's health care system to these trends is less certain. Health care, agriculture, and in fact all sectors of the economy suffered during the 1970s, a period of sluggish economic growth and deepening bureaucratization. Partly because of general declining standards, the early promise of the health care system has not been sustained, and its recent development has not been as auspicious as hoped.

The Medical Care System

Contrary to its stated principles,[10] the Soviet medical care system is neither unified nor egalitarian. Most people get care in hospitals and clinics operated and funded by the Ministry of Health, a system of free care that includes 94 percent of all health care facilities.[6] A parallel "closed" system is maintained by certain elite government ministries and by large factories. This "closed" system is considered to be of higher quality than the "public" one and draws a disproportionate share of all health funding.[11] Doctors find work in this system attractive; half of all doctors in Moscow work in just 30 "closed" clinics where their workload is lighter and their pay higher than that of doctors in the public system.[12]

Also contrary to its design, Soviet health care is not free. Patients treated in the public system are often required to pay doctors and nurses under the table in order to assure that medications be administered or that an operation be performed. A Soviet newspaper recently published some sample "prices": 500 rubles for an operation or delivery (the average

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monthly salary in the USSR is 200 rubles), 300 rubles for a 20-day hospital stay, 25 rubles or the donation of a unit of blood by a relative to assure admission to the hospital.[13] Most patients must purchase medications and appliances at prices that include "surcharges" demanded by sellers who manage to overcome bureaucratic obstacles and short supplies.

Spending for Health

According to Soviet statistics, national spending for health care in the USSR has remained at about 4 percent of the gross national product (GNP) since 1965.[14] This figure includes spending by the Ministry of Health to maintain the public system as well as spending by all other institutions in operating the closed, elite system. Funds contributed by the Ministry of Health, in turn, come from the central state budget, and the proportion of the state budget which has gone to health has declined from 6.6 percent in 1965 to 4.5 percent in 1985.[14] Thus in the last 20 years material support for the public system has been declining while the privileged elite system has been drawing increasing resources. From another perspective, at a time when per capita spending on health care was doubling in some western countries, the majority of Soviet citizens suffered a decline in the standard of their medical care.

Quality of Care

The results of these developments are most obvious in the lack of technological sophistication of medical care in the USSR. For example, by Soviet estimates, there are about 50 computerized tomographic (CT) scanners in the entire country, or less than 2 percent of the US per capita number.[15] Many of these scanners are Soviet-made, have limited capabilities, and are in operation an average of only five to six hours per day because of technical and organizational problems.[15] In Kiev, the fourth largest city in the USSR, we were told that there was only one operational CT scanner and two obstetric ultrasound machines for a metropolitan area population of some three million. At a national oncology center we were told that Papanicolaou staining often could not be done due to lack of materials and that a pH-meter was the only "automated" blood analyzer. On an ambulance run, we waited 90 minutes to use the only functioning electrocardiograph available that night to the emergency medical teams serving approximately one-third of Kiev. In Moscow, a surgical intern reported that he is limited to ordering six laboratory tests three times weekly. Disposable equipment is rare, and most equipment is scarce. For example, paramedics we accompanied on urban ambulance runs were rationed two to three reusable hypodermic needles and one syringe, necessitating mixing of medications before infusing. This practice is apparently common, judging from wall charts of miscible medications we saw on hospital wards. Drugs, especially antibiotics and cardiovascular preparations, are in short supply,[16,17] of poor quality,[18] and archaic. For example, a 1987 textbook of internal medicine suggests the use of leeches to treat malignant hypertension.[19]

We were struck by the low intensity of care on medical and surgical wards in tertiary care teaching hospitals, particularly the lack of nurses and monitoring equipment. The Minister of Health has acknowledged that many hospitals are "little more than places to sleep,"[20] and lengths of stay average 17–18 days as patients await diagnostic studies utilizing outdated, broken, or inefficient equipment.[21] Countrywide, 40 percent of hospital beds are in buildings originally constructed for other purposes,[22] and rural hospitals often lack hot water and sewage.[3]

The outlook for containing the spread of human immunodeficiency virus (HIV) in the USSR is bleak.[23] The reported number of HIV-infected Soviet citizens reached 292 in July 1989, 40 percent of whom were infected by transfusion of blood during surgery.[24] Eighty-one other cases have been traced to pediatric wards in three cities where the virus was spread from child to child through the reuse of unsterilized equipment. Some of these children were referred to other, more specialized hospitals, where the virus was spread further.[25] The Soviets plan to test 35 million blood samples[26] for HIV in 1989—testing blood donors, pregnant women, foreigners, and Soviets who travel abroad. Until now, however, because of a shortage of testing materials[27] some of these tests have been performed on pooled, mixed sera from several patients. This approach increases the number of samples tested but decreases the sensitivity of the test. The first reported Russian death from AIDS (acquired immunodeficiency syndrome) was not diagnosed until autopsy; the patient's original HIV antibody test, done on pooled sera, had been negative.[28]

Consumer and Provider Views

Many patients and physicians are dissatisfied with the quality of care. Ten percent of 350,000 physicians recently tested were characterized by Chazov as only "provisionally" qualified to take care of patients.[29] As a result, certification examinations for medical students and practitioners will be instituted.[30]

Soviet physicians suffer from poor morale and contend that they are capable of delivering better quality care, but are constrained by low salaries, inadequate facilities, and time. The official average monthly wage of a Soviet physician is approximately 80 percent of the national average wage of 200 rubles.[3] Physicians have little time to render patient care or to study. Paperwork consumes an average of five minutes of every standard seven-minute outpatient visit,[3] and ambulatory physicians spend an average of 11 working days yearly in the compulsory summarizing and copying of patients' charts by hand.[31] Many physicians privately express their concern that when they do have an opportunity to read, the information available may be incomplete or parochial, since access to foreign medical publications is restricted.[32]

Many people who spoke to us expressed particular concern about alcoholism and care of the elderly, two difficult issues that the health care reform has not yet addressed effectively. One of Gorbachev's first initiatives was a campaign against alcoholism: state production and sale of alcohol was cut and penalties for public drunkenness increased. The initial success of the campaign—a decline in consumption and a reduction in violent crime—have more recently been offset by the widespread production and use of home-distilled alcohol.[8] Little has been done or proposed about care for the elderly, who will account for 17.5 percent of the population in 2002.[33] Long-term care facilities are few and placement is difficult. A well-connected gerontologist could not tell us who qualified for nursing home care.

Proposed Changes

Like all aspects of the Soviet economy, health care is planned and directed centrally. The architects of *perestroika* hope to decentralize economic decision-making by the introduction of a system of individual incentives and penalties throughout the economy, including the health sector. Economic reform movements are nothing new in the Soviet Union, but the scope of the current effort and the magnitude

of the problems faced by the Soviet economy are unprecedented. The basic principles of *perestroika* were laid out in June 1987 and the specific proposals about health two months later, in August 1987.[34]

Health Share of the GNP

In general, health care will be entitled to a greater share of the gross national product and local officials will assume greater fiscal responsibility for the way the system functions. There are some specific provisions designed to promote the limited spread of patient-paid care, the further development of technology and its incorporation into practice, and an emphasis on preventive care. The proposed changes are quite striking, but as with many previous attempts to improve the lot of the average Soviet citizen, there are many political, economic, and social factors that may limit the success of this latest endeavor.

The leadership has made a commitment to increasing the share of the gross national product that goes to health from 3.9 percent to 6 percent by the year 2000.[34] Construction of hospitals and clinics is to increase 2–2.5 times to add or replace 1.4 million beds and increase the number of patients treated in state clinics by three million visits per day. New hospitals are to be better equipped, with expenditures per bed to double. The percentage of funds devoted to equipment is to rise from 15 percent to 40 percent. Outpatient diagnostic centers are to be built to coordinate and improve outpatient evaluation in order to shorten length of stay in hospitals where, according to Minister of Health Chazov, patients "spend too much time under investigation."[35] Special attention is promised for the construction of maternity and pediatric hospitals, with 40 percent of hospital capital outlays to be devoted to reducing an estimated shortage of 30,000 maternity beds and 160,000 pediatric beds.[34] Expenditures for medications in clinics and hospitals are to increase twofold. The pace of expansion will be quick; 30 percent of the proposed increases are to take place in the first two years.

Other Aspects of Reform

A second focus is to be a re-emphasis on prevention (*dispanserizatsia* in Russian). Preventive medicine and periodic health examinations have been a cornerstone of official Soviet health policy since the Revolution, although in practice the required physical examinations have been done perfunctorily or not at all.[2] Initially children, war veterans, pregnant women, and farm workers will be required to undergo annual checkups beginning in 1991, and the rest of the population will be examined after 1996.[34] In contrast to screening methods employed in the United States, which are targeted by age- and disease-specific risk, *dispanserizatsia* has been a wasteful and unsuccessful program which currently includes such practices as using fluoroscopy as a screening procedure for pulmonary tuberculosis.[36]

A fundamental reform, the gradual introduction of private enterprise in the form of cooperatives (a Soviet euphemism for private business), is taking place in health care as well as in the general Soviet economy. Staff-owned medical cooperative clinics and even a recently opened homeopathic hospital[37] are to rely solely on patient fees to cover operating expenses, drawing no state funds but returning profits to their owners and staff as income. These will supplement the volume of for-pay medical services already provided in state-owned "self-financing" clinics which receive some state funding but are not privately owned. Many people prefer to pay for services in these clinics, reflecting a prevalent Soviet belief that "you get what you pay for in medical care." In Moscow, where 20 of these clinics are located, 2.7 million of 126 million ambulatory visits in 1986 took place in these "self-financing" clinics.[38]

The process of regulating cooperative clinics has just begun. In late 1988, cooperatives were prohibited from using or paying for the use of state-owned diagnostic equipment[39] and, more recently, the government barred cooperatives from many medical activities. The list of prohibitions includes:

- treating and evaluating severely ill psychiatric patients;
- treating cancers, drug addiction, occupational illnesses, infectious and especially sexually transmitted diseases;
- providing obstetric care or abortions,
- any form of surgery;
- use of invasive diagnostic methods; and
- production of medications, including narcotics.[40]

Although legal, moonlighting activity by physicians in the past was heavily taxed and regulated (and largely unreported). It provided an estimated six to eight times the volume of services up to now provided in "self-financing" (patient paid) clinics, and 74 percent of the population acknowledge paying for the services of moonlighting physicians.[41] Under the new system, doctors must continue to work in a full-time position in a state-run facility, and they will be allowed to earn no more than 140 percent of their base pay. A system of fee-for-service payment for nurses is being introduced as well.[37]

In addition to the financial support planned for the public system, there are hints that fundamental administrative reforms may be introduced. An experiment to test the feasibility of capitation payments for comprehensive care is underway in Leningrad and two other sites, involving 100,000–150,000 people in each.[42] A clinic or group of clinics will be responsible for routine care to its patrons and will use its own funds to pay for needed hospitalization and surgery. Quality indicators (as yet unspecified) will be utilized to monitor appropriateness of care. There has even been talk of criminal sanctions for incompetent physicians, who are now free from any real threat of disciplinary action, including malpractice suits.

Prospects for Success

To date, the most tangible results of the health reforms have been the *glasnost* that accompanied them and personnel changes in the health leadership. The public discussion that accompanied the announcement of these proposed reforms was extraordinarily candid by Soviet standards. The popular media carried the debate as a series of investigative reports by journalists,[31,43] letters from patients and doctors, and numerous television and radio appearances by health officials, particularly by Chazov himself. Personnel changes have been numerous. In addition to the firing of Chazov's predecessor, by February 1987 most of the leaders of the health bureaucracy and related industries had been fired or reprimanded.[15] The more difficult task of accomplishing real improvement in health is just starting, however.

It is not clear that the government has the means to finance an expansion in health spending. The anti-alcohol campaign, recently de-emphasized, may compromise the government's ability to fund other improvements in health. Since the price of vodka was doubled and the hours of operation of stores that sell alcohol were shortened in 1985,

the decline in sales has created a 10.4 billion ruble shortfall in government revenue. (The entire state budget for health in 1985 amounted to just 17.6 billion rubles.[8]) The loss of this revenue, along with a recently announced 36.3 billion ruble budget deficit in 1988, may prevent the government from instituting its own health budget increases.[44] Improved performance in the rest of the economy as a result of *perestroika* (the Soviet government does collect taxes) and announced reductions in military spending might increase funds for health care, but such improvement is not likely to materialize for several years. Without better matching of supply and demand than is now achieved, even unlimited funding for health care cannot assure an adequate supply of medical manpower or materials for purchase. Even now, funds allocated for health are often returned to the treasury unspent.[45]

Soviet planners think that the "Eye Microsurgery" clinic of Dr. Svyatislav Fyodorov can be a model for cooperative clinics.[46] This Moscow clinic performs radial keratotomies in an assembly-line fashion, treating foreigners, who pay in Western currency, as well as Soviets, whose care is paid for in rubles. This ready access to a most prized commodity—Western currency—enables the clinic to purchase both Western and scarce Soviet technology and materials. However, this is an unlikely example for the majority of cooperative clinics, which will collect most of their fees in rubles, not the Western currency needed to buy quality equipment and materials.

The legalization of the moonlighting activity of physicians could cause a decline in the amount of care physicians are willing to provide. Along with official tolerance of increased private practice, strict collection of income taxes on fees has been promised, and many physicians may find after-hours work less profitable than before. The requirement that doctors who moonlight must also hold a full-time state job will assure that as long as the demand for free care remains the same, the volume of officially provided services will maintain at least its present level. Official statistics may show the delivery of physicians' services to be stable or increasing as the government co-opts the black market system, while overall the amount of care delivered by Soviet doctors might actually decline.[47] Thus it is unclear whether legal for-pay care will replace black market care in an equivalent way. Even if an active market in health care develops, the government plans to allow only a five-fold increase in the amount of for-pay care by the year 2000. Officially, each person spends just 1.3 rubles per year on health care, compared to 81.8 rubles per capita per year spent by the state.[48] Since the December 1988 act limiting the scope of activities allowed medical cooperatives, 30 percent of the estimated 4500 clinics have closed.[39] Thus, in the short run, the contribution of the private sector to the Soviet health economy may remain small; real improvements will depend on changes in the state system.

The intangible key to improvements in health, and to progress throughout the economy, is the willingness of the Soviet people to accept a new agreement with the government: the promise of greater material wealth in return for the uncertainty of harder jobs, unemployment, and inflation. There is much popular skepticism (still expressed privately) about *perestroika*,[49] and many Soviets we asked expressed skepticism about the leadership's commitment to reform health care in particular, since the bureaucrats and party bosses, sheltered by a network of exclusive clinics and hospitals, have not suffered the consequences of their inattention to the public system. The failure of Gorbachev's first program directed at health, the 1985 campaign against alcoholism,[8] has increased suspicion that government planners are not capable of organizing successful health care programs.

In conclusion, the resolution of the current economic crisis in the Soviet Union will determine its relevance as a world economic power into the twenty-first century. There is a crisis in the health sector, too; the record of declining health indices, the lack of technological sophistication, and the poor quality of medical care are well known in the West. We have added our own observations about that record and speculate that because of inadequate funding, scant access to Western capital, and constraints placed on the development of alternatives to the state health care system, real improvements in this area may not appear soon. A year after the announcement of plans to reform the Soviet health care system, Chazov challenged the timidity of the reforms at a special Communist Party conference: "If we (the Soviet Government) truly want to resolve the problems of health care, we must immediately change the standards by which that care is planned and financed."[9] Future improvements in the general Soviet economy and greater administrative flexibility will determine whether the Soviet health care system will improve.

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